

In the Claims

The claims stand as follows:

1. (previously presented) A method of applying paste to an electronic circuit board substrate comprising:

- providing an electronic circuit board substrate;
- providing over the substrate a mask having openings therein;
- providing a roller having an axis and a surface on the roller;
- selectively applying a discontinuous bead of flowable paste directly to a side of the roller surface facing the mask such that the paste is applied only to portions of the roller surface; and
- rolling the roller surface over the mask and flowing the paste into the openings in the mask.

2. (previously presented) A method of applying paste to an electronic circuit board substrate comprising:

- providing an electronic circuit board substrate;
- providing over the substrate a mask having openings therein;
- providing a roller having an axis;
- providing a surface adjacent the roller, surface being on a film strip, separate from the roller, disposed between the roller and the substrate;
- applying a bead of flowable paste to a portion of side of the surface facing the mask, prior to the paste contacting the mask; and
- rolling the roller and the surface containing the paste over the mask and flowing the paste into the openings in the mask.

3. (cancelled)
4. (original) The method of claim 2 wherein the paste is applied in a bead across the surface, parallel to the roller axis.
5. (original) The method of claim 2 wherein the paste is applied in a continuous bead across the surface, parallel to the roller axis.
6. (original) The method of claim 2 wherein the paste is applied in a discontinuous bead across the surface, parallel to the roller axis.
7. (original) The method of claim 2 wherein the paste is applied in a bead across the surface, parallel to the roller axis, at a variable rate of speed.
8. (original) The method of claim 2 wherein the paste is applied in a film on the surface.
9. (original) The method of claim 2 wherein the paste is applied selectively to the surface, conforming to areas of the mask openings.
10. (cancelled)

11. (original) The method of claim 2 wherein the surface does not substantially absorb components of the paste.
12. (original) The method of claim 2 wherein the substrate contains openings for vias, and wherein the overlying mask contains openings for lines and openings corresponding to the substrate via openings, and wherein the paste is flowed into the mask, onto portions of the substrate below the mask line openings and into substrate via openings during the rolling of the roller and the surface containing the paste.
13. (original) The method of claim 2 wherein the substrate is selected from the group consisting of organic, ceramic and metal printed circuit board substrates.
14. (original) The method of claim 2 wherein velocity of the roller is varied to compensate for variations in bow wave volume or shear thinning of the paste.
15. (previously presented) A method of applying a conductive paste to an electronic circuit board substrate comprising:
 - providing an electronic circuit board substrate;
 - providing over the substrate a mask having openings therein;
 - providing a roller having an axis;
 - providing a film between the roller and the mask;
 - applying a bead of flowable conductive paste to a side of the film facing the mask parallel to the roller axis; and

rolling the roller over the substrate while applying pressure to the film containing the conductive paste and flowing the paste into the openings in the mask and onto the substrate.

16. (original) The method of claim 15 wherein the paste is applied in a continuous bead across the film, parallel to the roller axis.

17. (original) The method of claim 15 wherein the paste is applied in a discontinuous bead across the film, parallel to the roller axis.

18. (original) The method of claim 15 wherein the paste is applied in a bead across the surface, parallel to the roller axis, at a variable rate of speed.

19. (original) The method of claim 15 wherein the film is in the form of a strip, and including providing a spool for the film strip, and feeding the film strip between the roller and the mask after paste is applied thereto.

20-23. (cancelled)

24. (previously presented) A method of applying paste to an electronic circuit board substrate comprising:

providing an electronic circuit board substrate;

providing over the substrate a mask having openings therein for forming structures on or in the substrate;

providing a roller;
providing a film strip having on a surface thereof a layer of flowable paste to be applied to the substrate;
passing the film strip between the roller and the mask, with the film strip surface containing the paste facing the mask; and
applying force to the roller against the film strip and mask, while moving the roller along the mask, to flow the paste into the openings in the mask and on to the substrate.

25. (cancelled)